

AMENDMENT

Subject matter to be added is in bold and underlined.

Subject matter to be deleted is in bold and strikethrough.

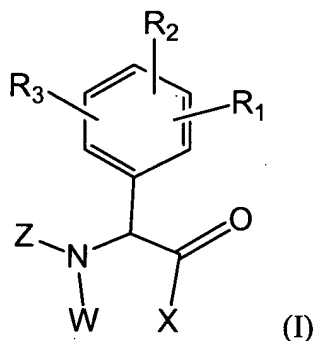
In the Claims:

Please enter rewritten Claims 1-2, 11-14, 17 and new Claims 37-51 as follows.

Please cancel Claims 3-4 and 22-36 without prejudice or disclaimer.

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) A compound according to formula (I),



or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein:

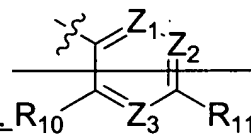
X is $-\text{NR}_6\text{S}(\text{O})_p\text{R}_{16}$;

W is hydrogen or $-(\text{CR}_7\text{R}_8)_q-\text{W}_1$;

W₁ is hydrogen or may be taken together with R₆ to define a bond so that X and W are joined together to form a five to seven membered heterocyclic ring;

Z is ~~a 5-membered heteroaryl group optionally substituted with 1-3 R₉, a five to six membered heterocyclo or cycloalkyl group optionally substituted with~~

1-3 R₉, a 9 to 10 membered bicyclic aryl or heteroaryl isoquinolyl optionally



substituted with 1-3 substituents selected from R₉ and/or R₁₀, ~~or~~ R₁₀, ~~or~~ R₁₁;

Z₁, Z₂ and Z₃ are independently N or CR₉;

R₁, R₂ and R₃ are attached to any available carbon atom of the phenyl ring and are independently selected from hydrogen, halogen, cyano, nitro, C₁₋₁₀alkyl, C₂₋₁₀alkenyl, substituted C₁₋₁₀alkyl, substituted C₂₋₁₀alkenyl, -C(=O)NR₁₂R₁₃, -OR₁₂, -CO₂R₁₂, -C(=O)R₁₂, -SR₁₂, -S(O)_tR₁₅, -NR₁₂R₁₃, -NR₁₂SO₂R₁₅, -NR₁₄SO₂NR₁₂R₁₃, -NR₁₂CO₂R₁₃, -NR₁₂C(=O)R₁₃, -NR₁₄C(=O)NR₁₂R₁₃, -SO₂NR₁₂R₁₃, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R₆ is hydrogen, C₁₋₄alkyl, NH₂, C₁₋₄alkylamino, hydroxy, or C₁₋₄alkoxy, or together with W₁ is a bond so that X and W join together to form a five to seven membered heterocyclic ring;

R₇ and R₈ are independently selected from hydrogen, -OR₁₈, -NR₁₈R₁₉, -NR₁₈SO₂R₂₀, alkyl, alkenyl, substituted alkyl, substituted alkenyl, halogen, haloalkyl, haloalkoxy, cyano, nitro, alkylthio, -C(=O)H, acyl, -CO₂H, alkoxycarbonyl, sulfonamido, sulfonyl, and phenyl in turn optionally substituted with 1-3 of halogen, cyano, haloalkyl, haloalkoxy, nitro, hydroxy, C₁₋₄alkyl, C₁₋₄hydroxyalkyl, C₁₋₄alkoxy, amino, NH(C₁₋₄alkyl), N(C₁₋₄alkyl)₂, and C₁₋₄aminoalkyl;

R₉, and R₁₀ and ~~R₁₁~~ are independently selected from hydrogen, halogen, alkyl, substituted alkyl, haloalkyl, haloalkoxy, cyano, nitro, -S(O)_uR₂₁, -NR₂₂SO₂R₂₁, -C(=O)NR₂₂R₂₃, -OR₂₂, -CO₂R₂₂, -C(=O)R₂₂, -SR₂₂, -NR₂₂R₂₃, -NR₂₂CO₂R₂₃, -NR₂₂C(=O)R₂₃, -NR₂₂C(=O)NR₂₃R₂₄, -SO₂NR₂₂R₂₃, -NR₂₂SO₂NR₂₃R₂₄, -C(=NR₂₂)NR₂₃R₂₄, five or six membered heterocyclo or heteroaryl, phenyl, and C₃₋₇cycloalkyl, ~~provided that R₁₁ is not -C(=NR₂₂)NR₂₃R₂₄ when W or W₁ is hydrogen~~; wherein when R₉, or R₁₀ or ~~R₁₁~~ is selected from heterocyclo, heteroaryl, phenyl, and C₃₋₇cycloalkyl, each of said cyclic groups in turn is optionally substituted

with up to three of C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₄ hydroxyalkyl, C₁₋₄ aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C₁₋₄ alkylamino, and/or cyano;

R₁₂, R₁₃, R₁₄, R₁₈, R₁₉, R₂₂, R₂₃, and R₂₄ are independently selected from hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R₁₅, R₂₀ and R₂₁ are independently selected from alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R₁₆ is alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, or heterocyclo;

p is 1 or 2;

q is 1, 2 or 3;

t is 1 or 2; and

u is 1 or 2;

provided that:

i) when Z is phenyl, pyridyl or pyridazinyl, R₉, R₁₀ and/or R₁₁ are other than cyano or C(=NR₂₂)NR₂₃R₂₄;

ii) when W is H or C₁₋₄alkyl, Z is other than aryl;

iii) when W is H, Z is other than C₅₋₆cycloalkyl, piperidinyl, tetrahydropyridinyl, 3-pyridyl, or 3-pyridyl N-oxide; or

iv) R₁, R₂, and R₃ are not all simultaneously hydrogen.

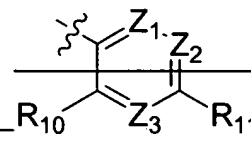
2. (Currently amended) A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein:

X is -NR₆S(O)_{*p*}R₁₆;

W is hydrogen or -(CH₂)_{*q*}-H;

Z is selected from a 5-membered heteroaryl group optionally substituted with 1-3 R₉, a five to six membered heterocyclo or cycloalkyl group optionally substituted

with ~~1-3 R₉, a 9 to 10 membered bicyclic aryl or heteroaryl~~ isoquinolyl optionally



substituted with 1-3 substituents selected from R₉ and/or R₁₀, ~~and~~ ~~R₁₀~~ ~~and~~ ~~R₁₁~~;

~~Z₁, Z₂ and Z₃ are independently N or CR₉ and at least one of Z₁, Z₂ and Z₃ is N;~~

R₁, R₂ and R₃ are attached to any available carbon atom of the phenyl ring and are independently selected from hydrogen, halogen, cyano, nitro, C₁₋₁₀alkyl, C₂₋₁₀alkenyl, substituted C₁₋₁₀alkyl, substituted C₂₋₁₀alkenyl, -C(=O)NR₁₂R₁₃, -OR₁₂, -CO₂R₁₂, -C(=O)R₁₂, -SR₁₂, -S(O)_tR₁₅, -NR₁₂R₁₃, -NR₁₂SO₂R₁₅, -NR₁₄SO₂NR₁₂R₁₃, -NR₁₂CO₂R₁₃, -NR₁₂C(=O)R₁₃, -NR₁₄C(=O)NR₁₂R₁₃, -SO₂NR₁₂R₁₃, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R₆ is hydrogen;

R₉, ~~and~~ R₁₀ ~~and~~ ~~R₁₁~~ are independently selected from hydrogen, halogen, alkyl, substituted alkyl, haloalkyl, haloalkoxy, cyano, nitro, -S(O)_uR₂₁, -NR₂₂SO₂R₂₁, -C(=O)NR₂₂R₂₃, -OR₂₂, -CO₂R₂₂, -C(=O)R₂₂, -SR₂₂, -NR₂₂R₂₃, -NR₂₂CO₂R₂₃, -NR₂₂C(=O)R₂₃, -NR₂₂C(=O)NR₂₃R₂₄, -SO₂NR₂₂R₂₃, -NR₂₂SO₂NR₂₃R₂₄, -C(=NR₂₂)NR₂₃R₂₄, five or six membered heterocyclo or heteroaryl, phenyl, and C₃₋₇cycloalkyl, ~~provided that R₁₁ is not -C(=NR₂₂)NR₂₃R₂₄~~; wherein when R₉, or R₁₀ ~~or~~ ~~R₁₁~~ is selected from heterocyclo, heteroaryl, phenyl, and C₃₋₇cycloalkyl, each of said cyclic groups in turn is optionally substituted with up to three of C₁₋₄alkyl, C₁₋₄alkoxy, C₁₋₄ hydroxyalkyl, C₁₋₄ aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C₁₋₄ alkylamino, and/or cyano;

R₁₂, R₁₃, R₁₄, R₁₈, R₁₉, R₂₂ R₂₃, and R₂₄ are independently selected from hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R₁₅, R₂₀ and R₂₁ are independently selected from alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{16} is alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, or heterocyclo;

p is 1 or 2;

q is 1, 2 or 3;

t is 1 or 2; and

u is 1 or 2;

provided that:

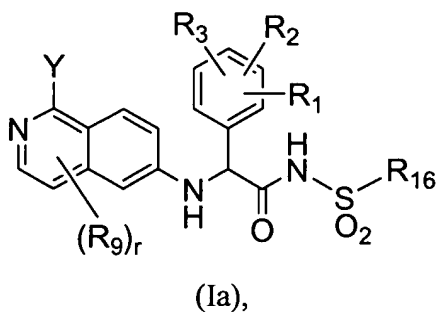
~~i) when Z is pyridyl or pyridazinyl, R_9 , R_{10} and/or R_{11} are other than cyano or $C(=NR_{22})NR_{23}R_{24}$;~~

~~ii) when W is H, Z is other than piperidinyl, tetrahydropyridinyl, 3-pyridyl, or 3-pyridyl N -oxide; or~~

~~iii) R_1 , R_2 , and R_3 are not all simultaneously hydrogen.~~

3-4. (Canceled)

5. (Original) A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein the compound is of formula (Ia):



wherein:

Y is NH_2 or H;

R_1 , R_2 and R_3 are attached to any available carbon atom of the phenyl ring and are independently selected from H, halogen, CN, NO_2 , C_{1-6} alkyl, C_{2-6} alkenyl, substituted C_{1-6} alkyl, substituted C_{2-6} alkenyl, $-C(=O)NR_{12}R_{13}$, $-OR_{12}$, $-CO_2R_{12}$, $-C(=O)R_{12}$, $-SR_{12}$, $-S(O)_tR_{15}$, $-NR_{12}R_{13}$, $-NR_{12}SO_2R_{15}$, $-NR_{14}SO_2NR_{12}R_{13}$, $-NR_{12}CO_2R_{13}$,

$-\text{NR}_{12}\text{C}(=\text{O})\text{R}_{13}$, $-\text{NR}_{14}\text{C}(=\text{O})\text{NR}_{12}\text{R}_{13}$, $-\text{SO}_2\text{NR}_{12}\text{R}_{13}$, aryl, heteroaryl, cycloalkyl, and heterocyclo;

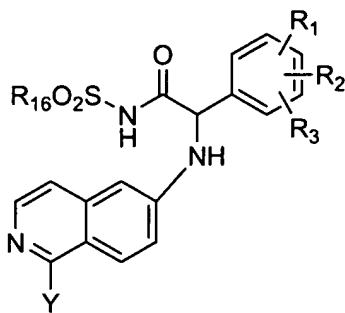
R_9 is, independently at each occurrence, H, halogen, alkyl, substituted alkyl, haloalkyl, haloalkoxy, cyano, nitro, $-\text{S}(\text{O})_u\text{R}_{21}$, $-\text{NR}_{22}\text{SO}_2\text{R}_{21}$, $-\text{C}(=\text{O})\text{NR}_{22}\text{R}_{23}$, $-\text{OR}_{22}$, $-\text{CO}_2\text{R}_{22}$, $-\text{C}(=\text{O})\text{R}_{22}$, $-\text{SR}_{22}$, $-\text{NR}_{22}\text{R}_{23}$, $-\text{NR}_{22}\text{CO}_2\text{R}_{23}$, $-\text{NR}_{22}\text{C}(=\text{O})\text{R}_{23}$, $-\text{NR}_{22}\text{C}(=\text{O})\text{NR}_{23}\text{R}_{24}$, $-\text{SO}_2\text{NR}_{22}\text{R}_{23}$, $-\text{NR}_{22}\text{SO}_2\text{NR}_{23}\text{R}_{24}$, five or six membered heterocyclo or heteroaryl, phenyl, or C_{3-7} cycloalkyl, ~~provided that R_{11} is not~~ $-\text{C}(=\text{NR}_{22})\text{NR}_{23}\text{R}_{24}$; wherein when R_9 is selected from heterocyclo, heteroaryl, phenyl, and C_{3-7} cycloalkyl, each of said cyclic groups in turn is optionally substituted with up to three of C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} hydroxyalkyl, C_{1-4} aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4} alkylamino, and/or cyano;

R_{16} is C_{1-6} alkyl substituted with 0-3 R_{25} , phenyl substituted 0-3 R_{25} , naphthyl substituted with 0-3 R_{25} , a 5-10 membered heteroaryl substituted with 0-3 R_{25} and selected from 1H-pyrazol-4-yl, 1H-pyrazol-5-yl, thiazol-5-yl, 2-naphthyl, quinolin-8-yl, benzo[1,2,5]thiadiazol-4-yl, 2,3-dihydro-benzo[1,4]dioxin-5-yl, or 1H-benzoimidazol-5-yl;

R_{25} is, independently at each occurrence, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} hydroxyalkyl, C_{1-4} aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4} alkylamino, cyano, carboxy, nitro, phenyl, $-\text{SO}_2\text{NR}_{22}\text{R}_{23}$, or $-\text{CO NR}_{22}\text{R}_{23}$; and

r is 0 to 2.

6. (Original) A compound according to claim 5, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein the compound is of formula (Ib):



(Ib),

wherein:

Y is H or NH₂;

R₁₆ is Me, Et, Pr, i-Pr, cyclo-Pr, Bu, i-Bu, t-Bu, phenyl, 2-Me-phenyl, 3-Me-phenyl, 4-Me-phenyl, 2-F-phenyl, 3-F-phenyl, 4-F-phenyl, 2-OH-phenyl, 3-OH-phenyl, 4-OH-phenyl, 2-OMe-phenyl, 3-OMe-phenyl, 4-OMe-phenyl, 2-CH₂OH-phenyl, 3-CH₂OH-phenyl, 4-CH₂OH-phenyl, 2-CO₂H-phenyl, 3-CO₂H-phenyl, 4-CO₂H-phenyl, 3-CONH₂-phenyl, 4-CONH₂-phenyl, 3-CO₂H-4-OH-phenyl, 3-SO₂NH₂-phenyl, 4-SO₂NH₂-phenyl, 2-CN-phenyl, 3-CN-phenyl, 4-CN-phenyl, 3-NO₂-phenyl, 4-NO₂-phenyl, 2-NH₂-phenyl, 3-NH₂-phenyl, 4-NH₂-phenyl, 3-CH₂NH₂-phenyl, 4-CH₂NH₂-phenyl, 4-(2-CH₂CH₂NH₂)-phenyl, 4-(2-*tert*-butyl cabamoyl-ethyl)-phenyl, benzyl, 5-Cl-1,3-diMe-1H-pyrazol-4-yl, 5-Me-1-phenyl-1H-pyrazol-4-yl, 2,4-diMe-thiazol-5-yl, 2-naphthyl, Quinolin-8-yl, Benzo[1,2,5]thiadiazol-4-yl, 2,3-dihydro-benzo[1,4]dioxin-5-yl, 2-amino-1H-benzoimidazol-5-yl, hydroxymethyl, hydroxyethyl, hydroxypropyl, aminomethyl, aminoethyl, aminopropyl, 2,2,2-trifluoroethyl, 3-SO₂NH₂-propyl, 3-CONH₂-propyl, 2-SO₂NH₂-ethyl, 2-CONH₂-ethyl, 4-SO₂NH₂-butyl, or 4-CONH₂-butyl.

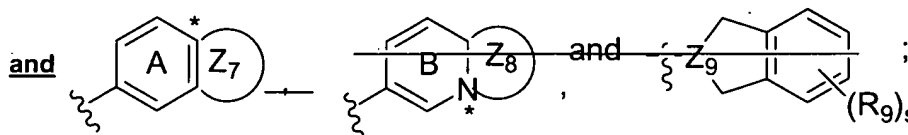
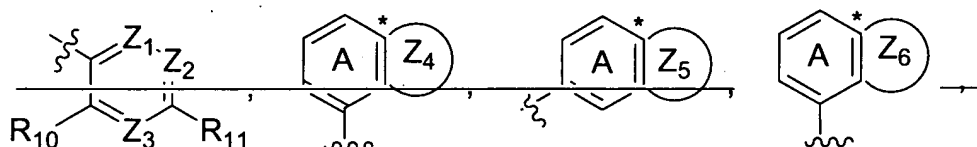
7. (Original) A compound according to claim 6, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein the compound is of formula (Ib) wherein R₁ and R₂ are C₁₋₄alkoxy.

8. (Original) A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein R_1 and R_2 are OR_{12} .

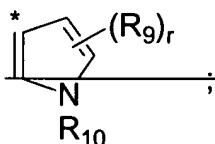
9. (Original) A compound according to claim 8, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein R_{12} is hydrogen, C_{1-6} alkyl, phenyl, or benzyl optionally substituted with 1-2 halogen, cyano, haloalkyl, haloalkoxy, nitro, hydroxy, C_{1-4} alkyl, C_{1-4} hydroxyalkyl, C_{1-4} alkoxy, amino, $NH(C_{1-4}alkyl)$, and/or $N(C_{1-4}alkyl)_2$.

10. (Original) A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein W is hydrogen.

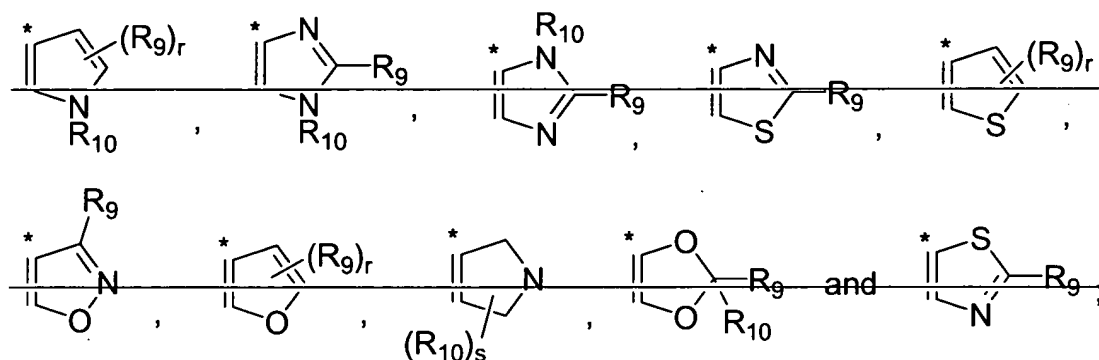
11. (Currently amended) A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein Z is selected from:



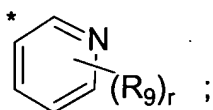
Z_4 is fused to ring A comprising the common carbon atom C^* and is



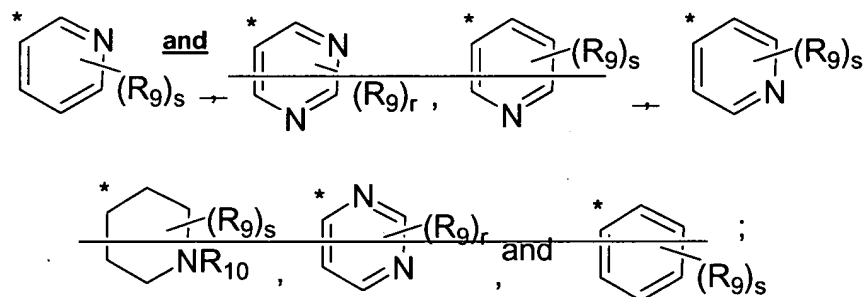
Z_5 is fused to ring A comprising the common carbon atom C^* and is selected from:



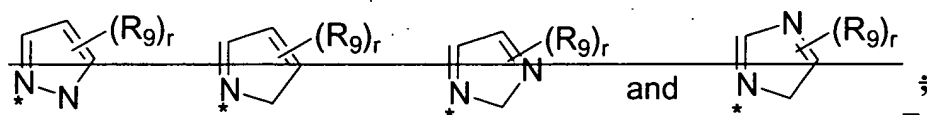
Z_6 is fused to ring A comprising the common carbon atom C^* and is



Z_7 is fused to ring A comprising the common carbon atom C^* and is selected from:



~~Z_8 is fused to ring B comprising the common nitrogen atom N^* and is selected from~~

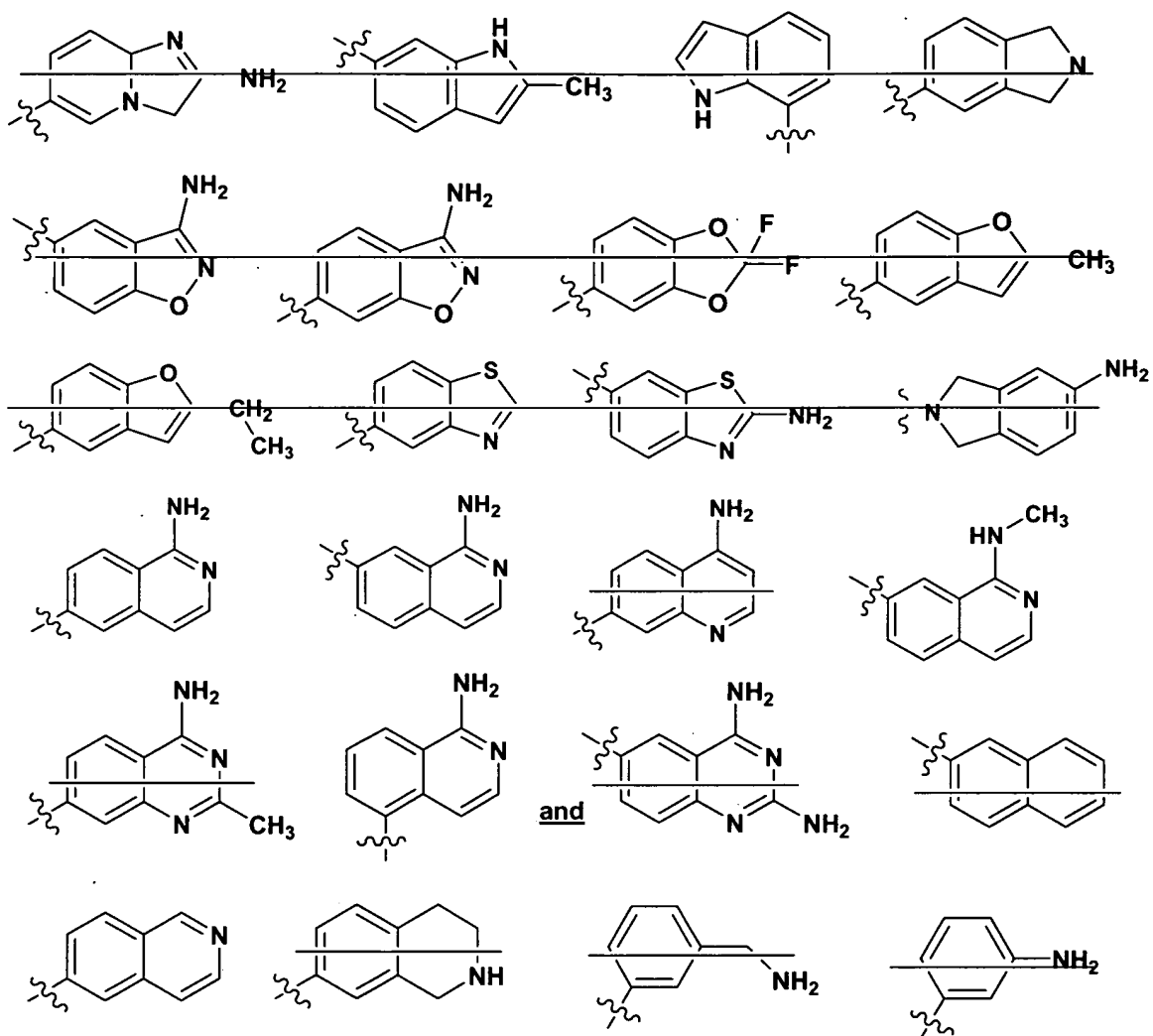


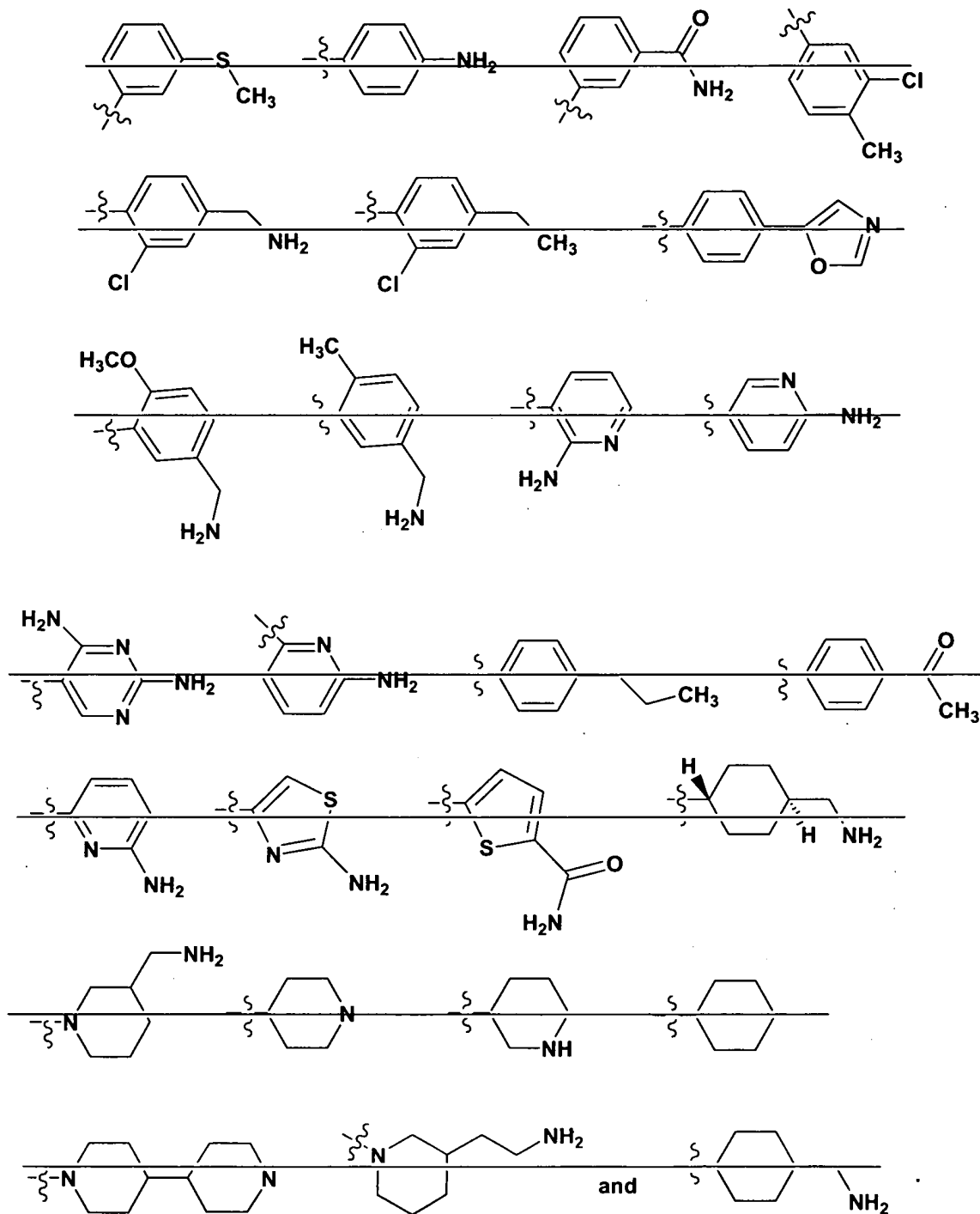
Z_9 is CH or N;

r is 0, 1, or 2; and

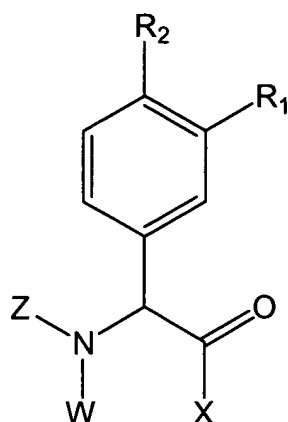
s is 0, 1, 2, or 3.

12. (Currently amended) A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt or hydrate thereof, wherein Z is selected from:





13. (Currently amended) A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt thereof, wherein the compound is of formula (Ic):



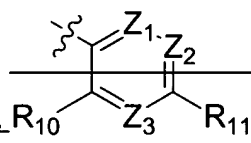
(Ic)

wherein:

X is $-\text{NR}_6\text{S}(\text{O})_p\text{R}_{16}$;

W is hydrogen or $-(\text{CH}_2)_q-\text{H}$;

Z is ~~a 5-membered heteroaryl group optionally substituted with 1-2 R₉, a five to six-membered heterocyclo or cycloalkyl group optionally substituted with 1-2 R₉, a 9 to 10-membered bicyclic aryl or heteroaryl~~ isoquinolyl optionally substituted with



1-3 substituents selected from R₉ and/or R₁₀, ~~or~~ ^{or} R₁₀ and/or R₁₁;

~~Z₁, Z₂ and Z₃ are independently N or CR₉ and at least one of Z₁, Z₂ and Z₃ is N;~~

R₁ and R₂ are independently hydrogen, halogen, cyano, nitro, C₁₋₁₀alkyl, C₂₋₁₀alkenyl, substituted C₂₋₁₀alkyl, substituted C₂₋₁₀alkenyl, $-\text{C}(=\text{O})\text{NR}_{12}\text{R}_{13}$, $-\text{OR}_{12}$, $-\text{CO}_2\text{R}_{12}$, $-\text{C}(=\text{O})\text{R}_{12}$, $-\text{SR}_{12}$, $-\text{S}(\text{O})_t\text{R}_{15}$, $-\text{NR}_{12}\text{R}_{13}$, $-\text{NR}_{12}\text{SO}_2\text{R}_{15}$, $-\text{NR}_{14}\text{SO}_2\text{NR}_{12}\text{R}_{13}$, $-\text{NR}_{12}\text{CO}_2\text{R}_{13}$, $-\text{NR}_{12}\text{C}(=\text{O})\text{R}_{13}$, $-\text{NR}_{14}\text{C}(=\text{O})\text{NR}_{12}\text{R}_{13}$, $-\text{SO}_2\text{NR}_{12}\text{R}_{13}$, aryl, heteroaryl, cycloalkyl, or heterocyclo;

R₆ is hydrogen or together with W is a bond so that X and W join together to form a five to seven membered heterocyclic ring;

R_9 , R_{10} ~~and R_{11}~~ are independently selected from hydrogen, halogen, alkyl, substituted alkyl, haloalkyl, haloalkoxy, cyano, nitro, $-S(O)_uR_{21}$, $-NR_{22}SO_2R_{21}$, $-C(=O)NR_{22}R_{23}$, $-OR_{22}$, $-CO_2R_{22}$, $-C(=O)R_{22}$, $-SR_{22}$, $-NR_{22}R_{23}$, $-NR_{22}CO_2R_{23}$, $-NR_{22}C(=O)R_{23}$, $-NR_{22}C(=O)NR_{23}R_{24}$, $-SO_2NR_{22}R_{23}$, $-NR_{22}SO_2NR_{23}R_{24}$, $-C(=NR_{22})NR_{23}R_{24}$, five or six membered heterocyclo or heteroaryl, phenyl, and C_{3-7} cycloalkyl, ~~provided that R_{11} is not $-C(=NR_{22})NR_{23}R_{24}$~~ ; wherein when R_9 , or R_{10} ~~or R_{11}~~ is selected from heterocyclo, heteroaryl, phenyl, and C_{3-7} cycloalkyl, each of said cyclic groups in turn is optionally substituted with up to three of C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} hydroxyalkyl, C_{1-4} aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4} alkylamino, and/or cyano;

R_{12} , R_{13} , R_{14} , R_{22} , R_{23} , and R_{24} are independently selected from hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{15} and R_{21} are independently selected from alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{16} is C_{1-6} alkyl substituted with 0-2 R_{25} , phenyl substituted 0-3 R_{25} , naphthyl substituted with 0-3 R_{25} , a 5-10 membered heteroaryl substituted with 0-3 R_{25} and selected from 1H-pyrazol-4-yl, 1H-pyrazol-5-yl, thiazol-5-yl, 2-naphthyl, quinolin-8-yl, benzo[1,2,5]thiadiazol-4-yl, 2,3-dihydro-benzo[1,4]dioxin-5-yl, or 1H-benzoimidazol-5-yl;

R_{25} at each occurrence is selected from C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} hydroxyalkyl, C_{1-4} aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4} alkylamino, and/or cyano;

p is 1 or 2;

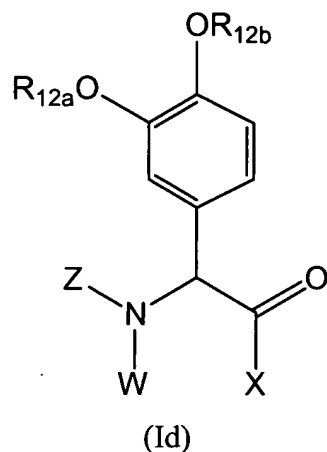
q is 1, 2 or 3;

t is 1 or 2; and

u is 1 or 2;

~~provided that when Z is pyridyl or pyridazinyl, R_9 , R_{10} and/or R_{11} are other than cyano or $-C(=NR_{22})NR_{23}R_{24}$.~~

14. (Currently amended) A compound according to claim 1, or a stereoisomer or a pharmaceutically-acceptable salt thereof, wherein the compound is of formula (Id):



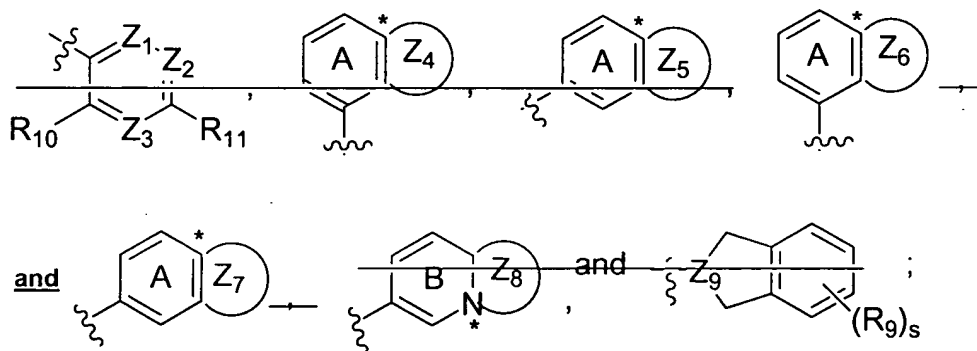
wherein:

X is $-\text{NR}_6\text{S}(\text{O})_p\text{R}_{16}$;

W is hydrogen or $-(\text{CH}_2)_p-\text{W}_1$;

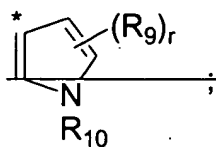
W_1 is hydrogen or may be taken together with R_6 to define a bond so that X and W are joined together to form a five to seven membered heterocyclic ring;

Z is selected from:



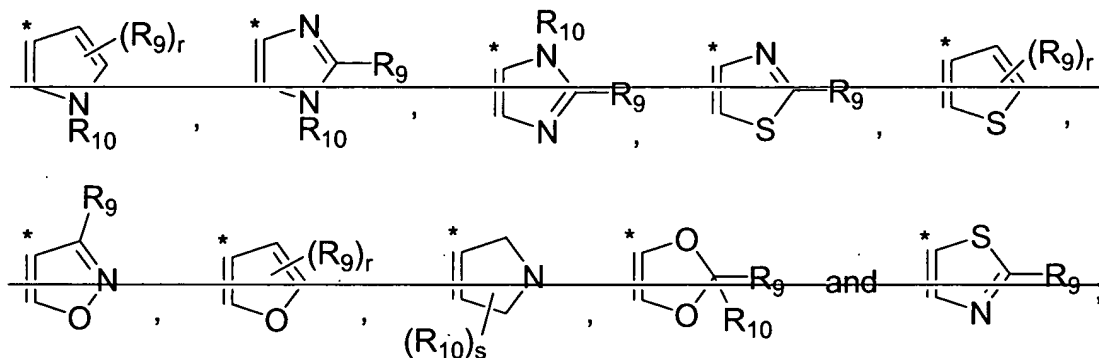
Z_1, Z_2 and Z_3 are independently N or CR_9 ;

~~Z₄ is fused to ring A comprising the common carbon atom C* and is~~

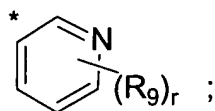


~~Z₅ is fused to ring A comprising the common carbon atom C* and is selected~~

~~from:~~

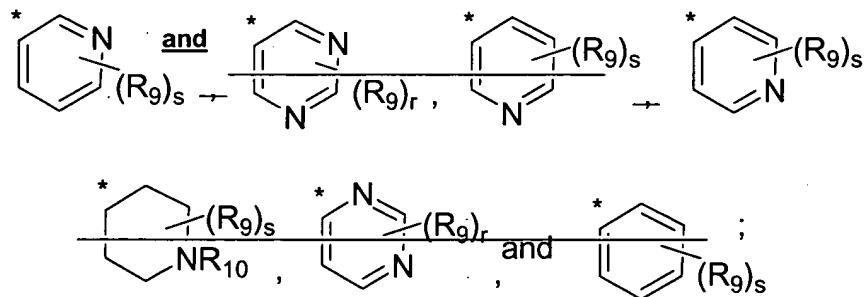


Z₆ is fused to ring A comprising the common carbon atom C* and is



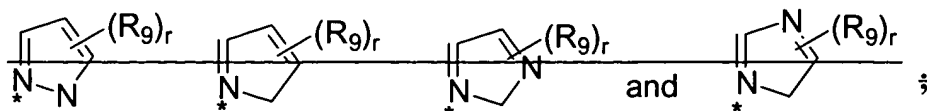
Z₇ is fused to ring A comprising the common carbon atom C* and is selected

from:



~~Z₈ is fused to ring B comprising the common nitrogen atom N* and is~~

~~selected from~~



~~Z₉ is CH or N;~~

R_6 is hydrogen or together with W_1 is a bond so that X and W join together to form a five to seven membered heterocyclic ring;

~~R_9 , R_{10} , and R_{11}~~ are is independently selected from hydrogen, halogen, alkyl, substituted alkyl, haloalkyl, haloalkoxy, cyano, nitro, $-S(O)_uR_{21}$, $-NR_{22}SO_2R_{21}$, $-C(=O)NR_{22}R_{23}$, $-OR_{22}$, $-CO_2R_{22}$, $-C(=O)R_{22}$, $-SR_{22}$, $-NR_{22}R_{23}$, $-NR_{22}CO_2R_{23}$, $-NR_{22}C(=O)R_{23}$, $-NR_{22}C(=O)NR_{23}R_{24}$, $-SO_2NR_{22}R_{23}$, $-NR_{22}SO_2NR_{23}R_{24}$, $-C(=NR_{22})NR_{23}R_{24}$, five or six membered heterocyclo or heteroaryl, phenyl, and C_{3-7} cycloalkyl, provided that ~~R_9 , R_{10} , and R_{11}~~ are is not $-C(=NR_{22})NR_{23}R_{24}$ when W or W_1 is hydrogen; wherein when ~~R_9 , R_{10} , or R_{11}~~ is independently selected from heterocyclo, heteroaryl, phenyl, and C_{3-7} cycloalkyl, each of said cyclic groups in turn is optionally substituted with up to three of C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} hydroxyalkyl, C_{1-4} aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4} alkylamino, and/or cyano;

R_{12} , R_{12a} , R_{12b} , R_{22} , R_{23} , and R_{24} are independently selected from hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{16} is C_{1-6} alkyl substituted with 0-2 R_{25} , phenyl substituted 0-3 R_{25} , naphthyl substituted with 0-3 R_{25} , a 5-10 membered heteroaryl substituted with 0-3 R_{25} and selected from 1H-pyrazol-4-yl, 1H-pyrazol-4-yl, thiazol-5-yl, 2-naphthyl, quinolin-8-yl, benzo[1,2,5]thiadiazol-4-yl, 2,3-dihydro-benzo[1,4]dioxin-5-yl, or 1H-benzoimidazol-5-yl;

R_{21} is selected from alkyl, substituted alkyl, alkenyl, substituted alkenyl, aryl, heteroaryl, cycloalkyl, and heterocyclo;

R_{25} at each occurrence is selected from C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} hydroxyalkyl, C_{1-4} aminoalkyl, halogen, hydroxy, haloalkyl, haloalkoxy, amino, C_{1-4} alkylamino, and/or cyano;

p is 1 or 2;

q is 1, 2 or 3;

r is 0, 1, or 2;

s is 0, 1, 2, or 3;

t is 1 or 2; and

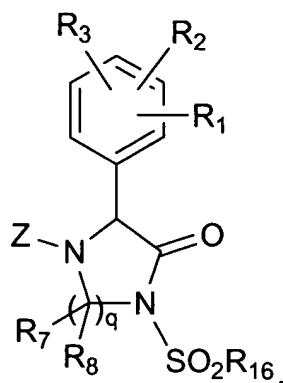
u is 1 or 2;

provided that:

~~i) when Z is phenyl, pyridyl or pyridazinyl, R_9 , R_{10} and/or R_{11} are other than cyano or $C(=NR_{22})NR_{23}R_{24}$; or~~

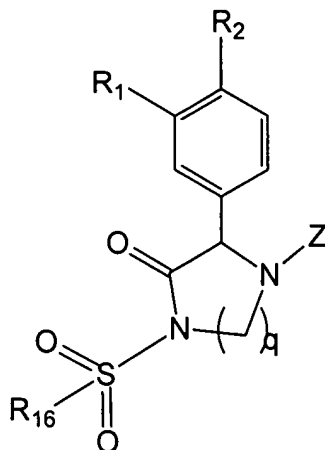
~~ii) when W is H or C_{1-3} alkyl, Z is other than aryl.~~

15. (Original) A compound of Claim 1, or a stereoisomer or a pharmaceutically-acceptable salt thereof, wherein the compound is of formula (Ie):



(Ie)

16. (Original) A compound of Claim 15, or a stereoisomer or a pharmaceutically-acceptable salt thereof, wherein the compound is of formula (If):



(If)

17. (Currently amended) A compound according to claim 1, wherein the compound is selected from the group:

~~*N*-[2-(3-ethoxy-4-isopropoxy-phenyl)-2-(1,2,3,4-tetrahydro-isoquinolin-7-ylamino)-acetyl]-benzenesulfonamide;~~

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-hydroxy-benzenesulfonamide;

4-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetylsulfamoyl]-benzoic acid;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-nitro-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-C-phenyl-methanesulfonamide;

naphthalene-2-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-methoxy-benzenesulfonamide;

4-amino-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

3-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetylsulfamoyl]-benzoic acid;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-methyl-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-fluoro-benzenesulfonamide;

methanesulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

ethane-1-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

propane-2-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

2-methyl-propane-2-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

5-chloro-1,3-dimethyl-1H-pyrazole-4-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-fluoro-benzenesulfonamide;

N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-nitro-benzenesulfonamide;

benzo[1,2,5]thiadiazole-4-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

quinoline-8-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

3-amino-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;

2,4-dimethyl-thiazole-5-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

5-methyl-1-phenyl-1H-pyrazole-4-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

2,3-dihydro-benzo[1,4]dioxine-5-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;
N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-2-nitro-benzenesulfonamide;
(2-{4-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetylsulfamoyl]-phenyl}-ethyl)-carbamic acid *tert*-butyl ester;
N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-hydroxymethyl-benzenesulfonamide;
N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-4-hydroxymethyl-benzenesulfonamide;
5-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetylsulfamoyl]-2-hydroxy-benzoic acid;
N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-hydroxy-benzenesulfonamide;
N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-2-hydroxy-benzenesulfonamide;
N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-cyano-benzenesulfonamide;
N-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-3-methyl-benzenesulfonamide;
2-amino-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;
4-(2-amino-ethyl)-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;
4-aminomethyl-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;
3-aminomethyl-*N*-[2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;
2-amino-1H-benzimidazole-5-sulfonic acid [2-(1-amino-isoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-amide;

~~*N*-[2-(3-amino-benzo[d]isoxazol-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;~~

~~*N*-[2-(3-amino-1H-indazol-6-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;~~

~~*N*-[2-(2-amino-3H-benzimidazol-5-ylamino)-2-(3-ethoxy-4-isopropoxy-phenyl)-acetyl]-benzenesulfonamide;~~

~~2-(4-aminoquinazolin-7-ylamino)-2-(3-ethoxy-4-isopropoxyphenyl)-*N*-(phenylsulfonyl)acetamide;~~

~~2-(4-aminoquinazolin-7-ylamino)-2-(3-ethoxy-4-isopropoxyphenyl)-*N*-(methylsulfonyl)acetamide;~~

~~2-(1-aminoisoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxyphenyl)-*N*-(2,2,2-trifluoroethylsulfonyl)acetamide;~~

~~2-(1-aminoisoquinolin-6-ylamino)-*N*-(cyclopropylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)acetamide;~~

~~2-(1-aminoisoquinolin-6-ylamino)-*N*-(3-aminosulfonyl-phenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)acetamide;~~

~~2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)-*N*-(phenylsulfonyl)-acetamide;~~

~~*N*-(3-cyanophenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)acetamide;~~

~~*N*-(3-aminosulfonyl-phenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)acetamide;~~

~~*N*-(cyclopropylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)acetamide;~~

~~*N*-(3-carboxamide-phenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)acetamide;~~

~~*N*-(2-aminoethylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)-2-(isoquinolin-6-ylamino)acetamide;~~

~~2-(1-aminoisoquinolin-6-ylamino)-*N*-(3-carboxamide-phenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)acetamide;~~

2-(1-aminoisoquinolin-6-ylamino)-N-(3-carboxamide-phenylsulfonyl)-2-(3-ethoxy-4-isopropoxyphenyl)acetamide; and

2-(1-aminoisoquinolin-6-ylamino)-2-(3-ethoxy-4-isopropoxyphenyl)-N-(methylsulfonyl)acetamide; ~~and~~

~~4-[3-benzenesulfonyl-5-(3-ethoxy-4-isopropoxy-phenyl)-4-oxo-imidazolidin-1-yl]-benzamidine~~; or a stereoisomer or pharmaceutically acceptable salt thereof.

18. (Original) A pharmaceutical composition, comprising: a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of Claim 1 or a pharmaceutically acceptable salt, or hydrate thereof.

19. (Original) A method for treating a thromboembolic disorder, comprising: administering to a patient in need thereof a therapeutically effective amount of a compound of Claim 1 or a pharmaceutically acceptable salt, or hydrate thereof.

20. (Original) A method according to Claim 19, wherein the thromboembolic disorder is selected from the group consisting of arterial cardiovascular thromboembolic disorders, venous cardiovascular thromboembolic disorders, and thromboembolic disorders in the chambers of the heart.

21. (Original) A method according to Claim 19, wherein the thromboembolic disorder is selected from unstable angina, an acute coronary syndrome, first myocardial infarction, recurrent myocardial infarction, ischemic sudden death, transient ischemic attack, stroke, atherosclerosis, peripheral occlusive arterial disease, venous thrombosis, deep vein thrombosis, thrombophlebitis, arterial embolism, coronary arterial thrombosis, cerebral arterial thrombosis, cerebral embolism, kidney embolism, pulmonary embolism, and thrombosis resulting from (a) prosthetic valves or other implants, (b) indwelling

catheters, (c) stents, (d) cardiopulmonary bypass, (e) hemodialysis, or (f) other procedures in which blood is exposed to an artificial surface that promotes thrombosis.

22-36. (Canceled)

37. (New) A pharmaceutical composition, comprising: a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of Claim 2, or a stereoisomer or a pharmaceutically-acceptable salt thereof.

38. (New) A pharmaceutical composition, comprising: a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of Claim 5, or a stereoisomer or a pharmaceutically-acceptable salt thereof.

39. (New) A pharmaceutical composition, comprising: a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of Claim 6, or a stereoisomer or a pharmaceutically-acceptable salt thereof.

40. (New) A pharmaceutical composition, comprising: a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of Claim 7, or a stereoisomer or a pharmaceutically-acceptable salt thereof.

41. (New) A pharmaceutical composition, comprising: a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of Claim 8, or a stereoisomer or a pharmaceutically-acceptable salt thereof.

42. (New) A pharmaceutical composition, comprising: a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of Claim 9, or a stereoisomer or a pharmaceutically-acceptable salt thereof.

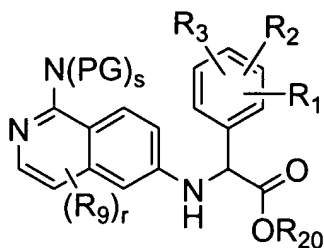
43. (New) A pharmaceutical composition, comprising: a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of Claim 10, or a stereoisomer or a pharmaceutically-acceptable salt thereof.

44. (New) A pharmaceutical composition, comprising: a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of Claim 11, or a stereoisomer or a pharmaceutically-acceptable salt thereof.

45. (New) A pharmaceutical composition, comprising: a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of Claim 12, or a stereoisomer or a pharmaceutically-acceptable salt thereof.

46. (New) A method for treating thrombosis, comprising: administering to a patient in need thereof a therapeutically effective amount of a compound of Claim 1, or a stereoisomer or a pharmaceutically acceptable salt thereof.

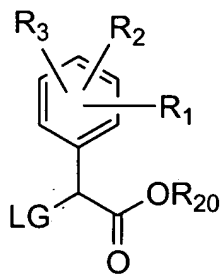
47. (New) A compound of formula (IV):



(IV)

wherein R_1 , R_2 , R_3 , and R_9 are defined as in Claim 1; R_{20} is C_{1-4} alkyl or benzyl; PG is a protecting group independently selected at each occurrence from the group: formyl, benzyl, p-methoxybenzyl, nitrobenzyl, 2,4-dimethoxybenzyl, triphenylmethyl, di-p-anisylmethyl, furylmethyl, C_{1-4} alkoxycarbonyl, C_{3-4} allyloxycarbonyl, benzyloxycarbonyl, p-methoxybenzyloxycarbonyl, o-nitrobenzyloxycarbonyl, p-nitrobenzyloxycarbonyl, trimethylsilyl, t-Bu-diMe-silyl, C_{1-4} alkylidene, and benzylidene; r is 0, 1, or 2, and s is 1 or 2; when s is 2, both PG may be taken together with the nitrogen to which they are attached to form a phthalimide group.

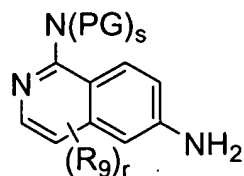
48. (New) A process for preparing a compound of Claim 47, which comprises:
contacting a compound of formula (II):



(II)

wherein LG is a leaving group selected from the group: halogen, mesylate, tosylate, benzenesulfonate, and trifluoromethanesulfonate;

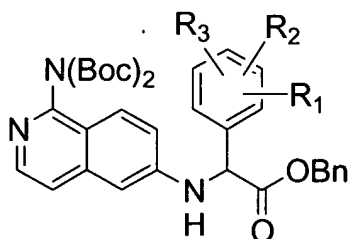
with a compound of formula (III):



(III)

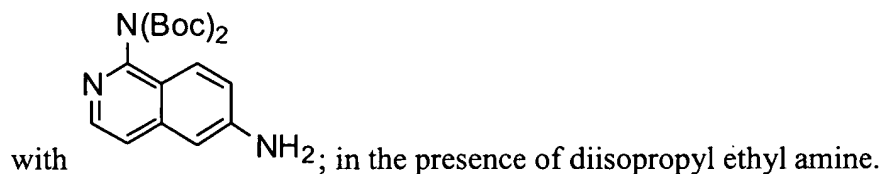
in the presence of a base selected from the group: diisopropylethylamine, triethylamine, potassium carbonate, potassium bicarbonate, and potassium phosphate.

49. (New) A process according to Claim 48, for preparing a compound of formula of (IVb):

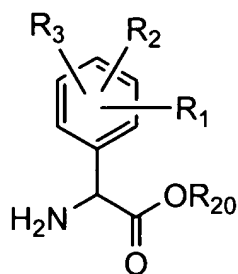


(IVb)

which comprises: contacting a compound of formula (II), wherein R₂₀ is benzyl;

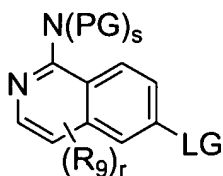


50. (New) A process for preparing a compound of Claim 47, which comprises: contacting a compound of formula (V):



(V)

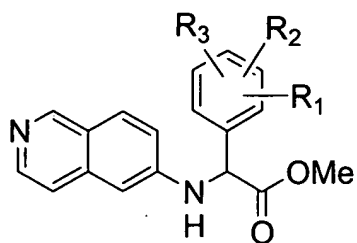
with a compound of formula (VI):



(VI)

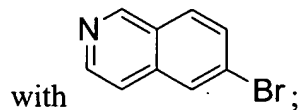
in the presence of a palladium catalyst selected from the group: palladium (II) chloride, palladium (II) acetate, tris(dibenzylideneacetone)dipalladium (0), tetrakis(triphenylphosphine)palladium (0), bis(tri-*t*-butylphosphine)palladium(0), and allylpalladium chloride dimer; or a copper catalyst selected from the group: copper (III) triflate, tetrakis(acetonitrile)copper(I), hexafluorophosphate, copper(I) iodide, and copper (II) acetate; a ligand selected from the group: 1,1'-bis(diphenylphosphino)ferrocene, (*R* or *S*)-1-(2-diphenylphosphino-1-naphthyl)isoquinoline, triphenylphosphine, triphenylarsine, 1,3-bis(2,4,6-trimethylphenyl)imidazolium chloride, tri-*t*-butylphosphine, tri-2-furylphosphine, (*R* or *S*)-2,2'-bis(diphenylphosphino)-1,1'-binaphthyl (BINAP), (*R* or *S*)-2,2'-bis(di-*p*-tolylphosphino)-1,1'-binaphthyl (Tol-BINAP), and *N,N*-diethylsalicylamide; and a base selected from potassium carbonate, potassium *t*-butoxide, tetrabutylammonium hydroxide, triethylamine, diisopropylethylamine, cesium carbonate, cesium acetate, and potassium phosphate.

51. (New) A process according to Claim 50, for preparing a compound of formula of (IVb):



(IVb)

which comprises: contacting a compound of formula (II), wherein R₂₀ is methyl;



in the presence of a palladium catalyst such as tris(dibenzylideneacetone)dipalladium (0); a ligand such as (R or S)-2,2'-bis(diphenylphosphino)-1,1'-binaphthyl (BINAP); and a base selected from diisopropylethylamine, cesium carbonate, and potassium phosphate.